

Tisbury Rural Sanitary Authority.

REPORT FOR THE YEAR 1908.

Acreage—43562.

Population (*estimated*)—7373.

To the Chairman and Sanitary Board.

GENTLEMEN,

In submitting to you my Ninth Annual Report for 1908 I must express my regret at the unavoidable delay in its presentation. For the preparation of the statistical tables I am indebted to the County Medical Officer, whose kindly assistance in this and in other respects has been of material help to me.

Birth Rate

The number of births again shows a decrease, only 169 being registered, as compared with an average of 186 for the ten years 1898—1907. Assuming the correctness of the estimated population of the District the figures give a birth rate of 22·9 per 1000 population.

Infantile Mortality

I am glad to be able to report that the lower birth rate is to some extent compensated by an extremely low rate of infantile mortality. The number of deaths of children under one year is usually small in your District, but only once during a period of more than twenty years has the rate been lower than for last year. For the decade ending 1907 it was 69·4 per 1000 births, whilst that for rural districts in the County was considerably higher. The rate for your district for 1908 was only 35·5 per 1000 births. Of the six infants who died the cause of death was certified in three instances as due to convulsions, in one to premature birth and in the remaining two to Bronchitis. There is reason to think that the system of giving information to mothers regarding the proper feeding of their children is productive of much good. Leaflets dealing with the question are handed to parents by the Registrars at the time of registration and there is no doubt that the bad effects of improper feeding amongst babies are now less often seen.

Death Rate

There were 113 deaths registered as against 125 in 1907. The rate for your district is 15·3 per 1000 of the estimated population. This is very much the same as the average for rural districts in the County generally and shows little variation from that usual in this neighbourhood. It is noticeable that 25 of the deaths are returned as due to Heart Disease, a number considerably in excess of the average, but of these 19 had reached advanced age. In calculating the death rate, allowance has this year been made for those persons who belonged to, but died out of the district. In previous years figures relating to these deaths have not been available. The numbers certified as due to Cancer show a marked diminution, only 8 being returned, against 18 in 1907. This gives a Cancer Mortality of 1·08 per 1000 estimated population. The remaining causes of death do not present any features of special interest though it may be noted that of the total number more than half were of ages 65 and upwards. Two deaths were due to Epidemic Influenza and one to Whooping Cough.

Zymotic Diseases.

The district has been comparatively free from the incidence of infectious disease only 8 cases of Scarlet Fever and 1 of Enteric Fever being notified. A few cases of Measles occurred but there has been complete freedom from Diphtheria, Erysipelas, Puerperal Fever and Epidemic Diarrhoea. In the report for 1907 I suggested that the Sanitary Authority might supply Diphtheria Antitoxin in cases where the provision of that remedy would be beyond the means of the patients, and I have to acknowledge the ready acquiescence with which the proposal was received by you. I have informed the medical gentlemen practicing in the District of your resolution, and advantage will be taken of it solely in necessitous cases.

Scarlet Fever.

Of the eight cases notified, five occurred in one house at Parhams Hill, Ludwell, during January and February. One was notified somewhat earlier from Milkwell, Donhead St. Andrew, but I could not trace any definite connection between this and the subsequent outbreak at Ludwell. On March 19th a further case was reported at Ludwell. No other occurred until September 30th, when a child at Teffont Magna developed the disease. No extension from this focus took place although there were other children in the house unprotected by previous attack and of susceptible age.

Measles.

Very few cases of Measles were reported during the year. The epidemic so severe throughout the whole District in 1907 came to an end early in 1908, and only 6 or 8 cases have been notified since. In June 1906 a resolution of your Council making the notification of Measles compulsory for three years was sanctioned. The recent epidemic provided an opportunity of putting into practice the preventive measures which are adopted with success in other forms of infectious disease, but the results proved to be very disappointing. This may in great measure be due to the fact that the disease is infectious before the characteristic rash appears.

Briefly summarised the results of compulsory notification were as follows: (1)—As far as was possible every notified case was visited, disinfectants were supplied, and leaflets describing the means for preventing extension distributed. (2)—This threw a large amount of extra work upon your officers out of all proportion to the results obtained. (3)—The cost to the ratepayers

in increased notification fees was comparatively large whilst the advantage to the community was apparently nil. The order comes to an end in June 1909, and under the foregoing circumstances I do not hesitate to suggest that you should not renew a measure which has failed so completely in the object for which it was intended.

Enteric Fever.

The only instance of Enteric Fever occurred at East Tisbury about the middle of December, and was in all probability due to the ingestion of contaminated oysters. These were taken by eight persons on December 1st. In six instances no ill effects followed, in the seventh slight Diarrhoea and Malaise supervened within 48 hours, but in this case some immunity may have been acquired by a previous attack of Enteric Fever contracted in India several years before. The eighth individual remained apparently unaffected for a period of 8 days, until December 9th, when he became ill with symptoms which ultimately developed into those typical of Enteric Fever. Every possible care to prevent the accidental pollution of wells in the neighbourhood was taken and all materials that might contaminate them was either cremated or buried in a lime trench until bacteriological examination showed that no specific infection remained.

House Accommo- dation.

The number of inhabited houses in the district was at the 1901 census 1850 and the average number of inmates rather over 4 to each house. As a general rule the type of cottage is good and most of them are substantially built of stone. There are of course exceptions where rooms are small, badly lighted and ventilated with low ceilings and small windows placed near the floor level. These defective rooms are found in the older cottages, those built at a period when the sole object of a window was to admit light, and when the value of ventilation was neither considered or understood. There are several marked examples of cottages which do not conform to the accepted standards of cubic space, lighting and ventilation but in nearly every case in order to bring them into line with modern requirements it would be necessary to rebuild them altogether. Part II of The Housing of the Working Classes Act is applied in extreme cases and under it three houses were closed during the year. It would be obviously impossible and inadvisable to enforce it in all instances however desirable, as the accommodation now is barely sufficient for the needs of the district, and in practice closing orders can only be made as fresh accommodation is provided. Supervision is exercised over the erection of all new houses. No action under Part III of the Act is taken or needed.

Water Supply.

This may be conveniently considered under three headings.—(1), That derived from public or private water works. (2), From deep wells. (3), From shallow wells. The main supply of the district is from deep wells, many of which, especially in Tisbury are polluted. I append a summary of a recent analysis made of a sample of water taken from a well at Tuckmill; "This water is heavily charged with oxidised and unoxidised matter of animal origin and is in consequence unfit for drinking or domestic purposes." The area in the immediate vicinity of this well is not satisfactory from a sanitary stand point. No proper drains exist, house refuse is thrown out in front of the cottages and I am not satisfied that at times some pollution of the soil does not take place from leaky bucket closets which are emptied at irregular intervals. I refer further to this matter under the heading of drainage. During the year a water supply for the village of Berwick St. John has been provided from a private source and has greatly added to the convenience of the inhabitants. The water, I am informed, is of good quality and abundant and is obtained from two sources, one an excellent spring at Ludwell and the other a deep well through the chalk at Berwick. The water is pumped to a reservoir on the Down above the village and I understand that provision is also being made for its use in case of fire. The public supply at Teffont and the private one at Semley continue satisfactory. There are now 301 houses in the district drawing their supplies from waterworks. The approximate number of inhabited houses is 1850 so that about 1500 are dependent for their water upon wells which are either polluted or liable to become so. With regard to the question of a public supply for Tisbury, plans are now being prepared for the scheme for utilising the Lawn Springs, to which reference has been made in previous reports. These plans will I hope be soon submitted to you.

Sewerage & Drainage.

In previous reports attention has been drawn to the necessity for an improved method of dealing with the sewage of Tisbury. Under the then existing conditions this was discharged into two filter tanks from which the overflow passed untreated into the Nadder, and complaints both as to the resulting river pollution, and foul emanations from the tanks, were received. To remedy these defects, plans for an extended and more effectual means of treatment were prepared by your Surveyor, approved by your Council and carried out under the supervision of Mr. Davies with, up to the time of writing, most satisfactory results. Briefly stated the alterations which now replace the old system are as follows: The original filter beds are utilised as sludge tanks receiving the crude sewage and are used alternately. From them the overflow is carried across the stream to duplicate contact beds which it reaches through Brown's controlling syphons. These contact beds are also used alternately and contain limestone flags to a depth of about 24 inches. In these beds the overflow remains for a time until clarified and is then discharged into a main drain of perforated socket pipes. From this main at intervals of about 46ft run twelve branch pipes also perforated and from these are given off twenty four smaller branches. Inspecting and precipitating chambers are provided at each junction with the main together with penstocks to divert the effluent into whichever area it is desired. After passing through these distributing pipes the surplus effluent which has escaped absorption finds its way to an overflow pipe, about 400 yards long, to a coke breeze filter, where it receives its final treatment before passing through an underground channel into the stream about half-a-mile from the sludge tanks. In carrying out the practical details the chief difficulty encountered was the narrow margin of fall that, from the nature of the ground, was available. In order to obtain the amount required it was necessary to lay some of the pipes in a non-porous clay sub-soil and at a greater depth than is desirable for a subsoil irrigation system. It would appear however, that although in theory the land does not lend itself to the best results, in practice

they seem to leave little to be desired, for the final effluent is clear and odourless. Ample provision has been made for extension of the system should it become necessary. Up to the present time rather less than three acres of land have been utilised and an additional six acres is available in case of need. Owing to the low lying position of the area some little anxiety was felt as to the possibility of the system becoming choked by flood water. These fears, however, appear to be groundless as since the installation, one of the highest floods for some years has been experienced, without disturbance taking place. The sludge tanks are emptied periodically and the contents buried in trenches. So far as I can judge at present the system seems entirely satisfactory and smell is reduced to a minimum. All the work has been carried out by local labour and at comparatively small cost. The greater portion of Tisbury is now properly sewered. Tuckingmill, however, is not yet connected up. This can be done conveniently and with advantage to that neighbourhood, as provision has been made for a branch to be taken to the sewer in Church Street. If this were done much of the liquid house refuse and slops, which now are thrown out and find their way through the rock, perhaps to the nearest well, would be conveyed to a safer destination. A system similar to that just described has been in operation at Hindon for several years and continues to be satisfactory. It will be remembered that when it was instituted the original sludge tank was not interfered with as its condition was then good. Owing to lapse of time some repairs will before long become necessary, and at the same time it will be well to make some minor structural alterations to the tank. A noticeable point is the improvement that has taken place in the condition of the field in which the pipes are laid. When the overflow was allowed to run into the nearest ditch, there to further decompose, the pasture was coarse and poor, but since percolation has been in operation the appearance of the land has much improved and the herbage is finer and more abundant.

During the year 39 house drains have been laid or re-laid, and 30 have been cleansed, trapped, and ventilated. Nine new water-closets have been provided and several old ones have been repaired. Decided improvement in the conditions of house drains is being effected in several parts of the district.

Milk Supply.

The production of milk forms a most important industry, many thousand gallons being dealt with every week, in the district. In recent years a very general interest has been aroused, and public opinion much exercised, in the question of the general milk supply, and both Sanitary Authorities and consumers have demanded that milk intended for human consumption shall be drawn from healthy cows under proper hygienic conditions, and I have had from time to time to point out that in this district the necessary steps to ensure this were not always taken. During the past few years much improvement has taken place. There is amongst the great majority of dairy farmers a general desire to conform to the regulations made for their guidance. I have satisfied myself from personal observation that far more attention is now paid to cleanliness than was formerly the case. Preliminary hand-washing by milkers is now usually observed, and in one instance I noticed a bucket of disinfectant solution in which the men rinsed their hands from time to time. Cow stalls are cleaner, the yards better kept, and altogether much improvement is noticeable. This may also be gathered from the fact that it was not necessary to deal with any contraventions of "The Dairies, Milkshops and Cowsheds Order" during the year. The larger question, that of eliminating tuberculous animals from dairy herds has still to be met. We now know that tuberculous milk constitutes a definite danger, and that infected supplies may be the source of tuberculous lesions in the human being. The dairies, cowsheds, and milk depôts are inspected by your Inspector and myself, and in the latter especially a high standard of cleanliness is apparent. It is probable that the conditions now obtaining in this district compare very favourably with those in other parts of the country.

Food Inspection.

A general supervision is kept over the food exposed for sale but it is rarely that an action is necessary. In one instance the carcass of a heifer was found to be tuberculous and was destroyed. The nine slaughter houses under your supervision are inspected regularly, and of these four have been repaired and cleansed since my last report. They are kept clean and in good order. I am not aware of any contraventions of the "Sale of Food and Drugs Act."

Pollution of Rivers.

Now that the chief source of pollution of the River Nadder has been removed by the new sewerage scheme there are, I believe, but two or three instances in which untreated effluent is allowed to pass into the stream. The quantities are insignificant, and in one instance it will now be possible to connect with the new system. Improvement has also been effected in another case, where, during wet periods, the runnings from a farmyard found their way to the stream. Although the nuisance has not yet been entirely prevented it has been greatly modified.

Excrement Disposal.

Many houses in Tisbury discharge their drainage into the main sewer. Others, both in Tisbury and the surrounding district have private disposal systems of their own, and the majority of them are well constructed and satisfactory. There remains, however, a large number where no drainage exists and either earth closets or vault privies are utilised. Within a very recent period the latter objectional form was in general use, but they are now fast being replaced by the more cleanly ash or earth closets. Over 100 of these pests have been so converted during the past five years. Most of the houses are provided with gardens or allotments to which the refuse is removed.

Removal of House Refuse.

This is done by occupiers and there is no public system of scavenging. In such a scattered district this is scarcely possible, nor is it necessary, as removal can be easily done by householders who have, as mentioned previously, ample garden space upon which to deposit it.

Nuisances.

The figures under this heading are small and comprise 4 cases in which animals were kept in surroundings dangerous to health, 1 accumulation of offensive refuse, and 1 instance of an insanitary condition under the "Factories Act." Abatement was obtained in each case without difficulty, and no necessity has arisen during the year for legal proceedings in any matter connected with the Sanitary Administration of the district.

Lodging Houses Offensive trades, &c.

There are now no public lodging houses and but few private lodgings are let. No byelaws are in operation. I am not aware of the existence of any offensive trade-carried on in the district.

Schools.

The general sanitary state of the schools in your area has improved greatly in the last few years. In most of them fresh ventilation systems have been installed, and in several structural alterations have been effected in the closets and urinals. Fresh arrangements are contemplated at Chilmark to remedy defects in the drains. Water supplies are provided at Semley, Berwick St John and Teffont. With regard to the question of the general health of the scholars and for the prevention of the spread of infectious disease, I am dependent to a great extent upon my own periodical visits and the observations made by the teachers. Medical inspection of school children has provided additional opportunity of watching individual scholars, for noticing defects both bodily and mental, and for making suggestions for combating those defects. Much of my early information regarding cases of sickness is derived from the school teachers, who are invariably anxious to assist the Authority in every way.

Infectious Cases.

Upon receipt of a notification the house of the patient is visited and the nature of the disease explained to a responsible person, who is informed of his obligations in the matter. A leaflet is also left or sent which contains full instructions. Notice is given to school teachers that in certain cases children living in the same house are to be excluded from school until permission for their return is given. Disinfectants are supplied and their use explained. At the expiration of the infectious period notice to that effect is sent to the Sanitary officials by the practitioner in attendance, and the premises are then disinfected. There is a small isolation cottage at Teffont containing four beds, but its use is reserved for possible cases of Small-pox. It is available for use at any time. The methods of disinfection employed are (1), by means of sulphur candles; (2), by Formalin. Infected clothing is either boiled or exposed to disinfectant fumes, and rooms and furniture are scrubbed with a disinfectant solution.

Control of Tuber= culosis.

The deaths attributed to Phthisis were 5 in 1908, and a like number occurred in 1907. This is very much the usual number for this district. Voluntary notification of this disease is in force but it does not appear that advantage is taken of it to any extent, as no notifications have been received since December 20th, 1906. Some information is, however, available from other sources, and when obtained, is acted upon. Pamphlets issued by the National Association for the Prevention of Consumption are sent to the patients or their friends, and advice as to the nature of the condition and the means to be taken to prevent its spread, is given by the medical attendant or the Sanitary officers. There is no hospital accommodation in the district for cases of Phthisis, but patients in an early stage are received at Salisbury Infirmary. Occasionally early cases are treated at one or other of the Convalescent homes or Sanatoria, to which they have been sent through the interest of subscribers.

Factories & Workshops.

There are 66 Factories, Workshops and Work places on the register, and all are periodically inspected by your Inspector and myself. Altogether 14 nuisances under the Act were found and all of them remedied.

Conclusion.

To summarise the foregoing, whilst the Birth and Death Rates show little variation from the normal, the decrease of Infantile Mortality is marked and satisfactory.

Improvements are to be noted under the headings of Water Supply, though much here remains to be done, Drainage, the lessening of river pollution, Milk Supply and condition of dairies and cowsheds.

The incidence of Infectious Diseases has been slight.

Some improvement has been effected to cottage property, though much more is needed in this connection. Two cases of overcrowding were discovered and abated, and at least another remains in which sleeping accommodation is very limited, but at present no larger house is available for this family, whose present surroundings are quite insufficient from a sanitary standpoint. Representations have been made to the owner of the property, and it is hoped that the necessary alterations and additions will shortly be made.

Your District has been inspected as a whole by Mr. Davies and myself, and portions of it repeatedly, special attention being paid to the supervision of Factories, Workshops, Bake-houses, and Cowsheds. The work both of inspection and the resulting correspondence which it entails is increasing as the result of fresh obligations that have been imposed upon Sanitary Authorities.

I am, Gentlemen,

Your obedient Servant,

June 1st, 1909.

C. A. ENSOR.